

REMARKS/ARGUMENTS

The earlier rejections are withdrawn but a number of new grounds of rejection are now applied. These are based primarily on a combination of the teachings of Freeman et al (US 6,402,824) and Ajoku et al (WO 00/04777).

In particular, the Examiner has now raised a question of obviousness of Claims 20-22, 26-32 and 39, and separately, Claim 38, based on US Patent No. 6,402,824 in the name of Freeman taken in combination with International Patent Publication No: WO 00/04777 in the name of Ajoku and in relation to Claim 35, further in view of US Patent No. 3,336,221 to Ralston.

The Examiner has raised obviousness objections to claim 20 based on Freeman in combination with Ajoku. The Examiner states that Freeman teaches the use of a polyacrylic dispersant in a slurry of calcium carbonate and acknowledges that this document does not teach the addition of THP salt. However, the Examiner relies on Ajoku to teach the use of THP salts to disperse pigment slurries. The Examiner reasons that it would be obvious to combine the teachings of Freeman and Ajoku and on doing this the only difference between the combination and the present claimed

invention would be the addition of the THP salt and the dispersant as a single composition.

The Examiner reasons that changes in sequence of addition are obvious unless it can be shown that they give rise to a new or unexpected effect. The Examiner also reasons that the use of THP salts of Ajoku in the slurry of Freeman is obvious as it is clear from Ajoku that slurries in paper products should have no microorganism count and compositions such as THP salts are useful to achieve this aim.

It is submitted that the Examiner's reasoning of what would be obvious ignores the objects and context of the Freeman teaching on which the rejection relies. Without some reason to do so, it would not be obvious to change the specific requirements of the Freeman process (see outline in the ABSTRACT). To do so would ignore the stated objects of Freeman in describing the steps of the disclosed process.

Furthermore, even if the two documents contain features of the present invention, there is no basis by which one would know which art or elements to select when a choice of many biocides and many dispersants are known in the art. Without guidance, one would not

"obviously" come up with the particular combination claimed when creating the present claimed invention. The Examiner is using hindsight to assess the relevance of the particular prior art documents selected from the prior art, and the elements selected from the prior art, to the claimed invention.

Of course there is always an element of hindsight in any rejection. However, in this case the Examiner is using hindsight of the impermissible type. The present claimed invention relates to the use of compositions comprising a THP salt in combination with particular dispersants for treating an inorganic slurry to maintain the slurry (i) in a substantially homogenous phase and (ii) to preserve the slurry against bacterial contamination. The present invention does not cover the use of any combination of THP salt and any arbitrary dispersant for this particular use but rather only covers the use of specific dispersants that have been found to work effectively in combination with a THP salt in this way. One would not simply assume that any arbitrary combination of a biocide with a dispersant would result in a composition that could successfully treat an inorganic slurry to maintain the slurry in a substantially homogenous phase and to preserve the slurry

against bacterial contamination. A worker in this field will be well aware that chemical interactions and interrelations are more complex than this and if he had attempted to simply randomly select a biocide and dispersant he would have found that many could not be successfully used together.

Accordingly, the present invention includes the identification that it is in fact possible to use a specific combination of particular biocides (THP salts) with particular dispersants (phosphonated compounds containing at least one tertiary nitrogen atom or homopolymers of unsaturated acids) to treat an inorganic slurry to both maintain the slurry in a substantially homogenous phase and to preserve the slurry against bacterial contamination. There is nothing in either of the two prior art documents selected by the US Patent Office Examiner that provides any sort of indication or suggestion of this particular combination of products. Without such a teaching it would not be obvious that these particular products could successfully be used together in a composition to achieve the two specific goals set out in claim 1. It is submitted that without the benefit of hindsight of the impermissible type one could not have found it obvious to arrive at

the particular method of claim 1 from the prior art cited as there is nothing in either of the documents raised that clearly indicates or suggests both that THP salts are compatible with a dispersant selected from phosphonated compounds containing at least one tertiary nitrogen atom and homopolymers of unsaturated acids, and that this particular combination of components could successfully be used to achieve both the effect of maintaining an inorganic slurry in a substantially homogenous phase whilst also preserving the slurry against bacterial contamination.

Accordingly, for the above reasons it is submitted that the one would not combine the two documents cited at least in the manner suggested by the Examiner and claim 20 (and claims dependent thereon) is therefore patentable over the prior art cited.

The Examiner has rejected dependent claims 21, 22, 26, 31, 32 and 39 also on the basis of the combination of Freeman and Ajoku. However, as all of these claims require the features of claim 20 to be present, it is submitted that they are also patentable over the combination of documents cited at least by means of their dependencies and based on the arguments suggested above in relation to claim 20.

Dependent claims 27 to 30 are rejected primarily over the combination of Freeman and Ajoku as applied to claim 20. Since claims 27 to 30 also depend from claim 20 it is submitted that they are inventive for the reasons given above and therefore it is submitted that claims 27 to 30 are inventive at least by means of their dependencies.

The issue is the same for dependent claims 23 to 25. The additional citation of US Patent No: 3 336 221 of Ralston which discusses the use of tetra-sodium salt of nitrilo-tris (methylene phosphonate) for solubilising or dispersing calcium carbonate does not provide teaching to obviate the argument with respect to the primary combination. The Examiner states that one would have found it obvious to use the dispersant of Ralston in the composition of Freeman and would do so as Ralston teaches that the particular salt in question is effective at chelating and dispersing calcium carbonate. However, as detailed above in relation to claim 20 one would have no reason to choose the particular dispersants of claims 23 to 25 for use in combination with a THP salt without the benefit of impermissible hindsight as there are so many dispersants and biocides known in the art to choose from with a great many chemical

reactions and interactions that could occur between them to be considered. Therefore success would not automatically be expected from combining the dispersant and biocide set out in the present claims.

Claim 35, which is effectively made up of a combination of the features of claims 20 and 25, is rejected based on the prior art documents Freeman, Ajoku and Ralston in combination based on the reasons already presented in relation to claims 20 and 25 separately. It is submitted that the same arguments in response are relevant.


In relation to claim 38, which is a third independent claim and is effectively a combination of claims 20 and 27, again the Examiner has effectively raised the same arguments already raised in relation to claims 20 and 27 separately. It is again submitted that the same arguments as above are relevant.

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In view of the above, the rejections are avoided. Allowance of the application is therefore respectfully requested.

Frishauf, Holtz, Goodman  
& Chick, P.C.  
220 Fifth Ave., 16th Floor  
New York, NY 10001-7708  
Tel. No.: (212) 319-4900  
Fax No.: (212) 319-5101  
MJC:sg

Respectfully submitted,



MARSHALL J. CHICK  
Reg. No. 26,853

**Encs.: Petition for Extension of Time Two Month and Fee**